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A Journal of Scottish Natural History

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Although the journal's main interests have always centred on the history and distribution of Scottish fauna and flora, it is prepared to publish contributions on the many aspects of Scottish natural science embraced by its title, including Zoology, Botany, Geology, History, Geography, Medicine and the allied sciences, Archaeology, and the Environment.

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CONTENTS	
1995 - Part 2	
 The Romans and Strathclyde: The Road System 6. The Nith Valley Roads Part 1: The Roman System By Mr. Frank Newall and Dr. William Lonie 	85-115
 The Romans and Strathclyde: The Road System 7. The Nith Valley Roads Part 2: Possible Roman Roads of the Carsphairn Massif By Mr. Frank Newall and Dr. William Lonie 	117-131
Strange Beasts on the Bonny Banks: An Update By Mr. John Mitchell	133-134

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By FRANK NEWALL and WILLIAM LONIE Renfrewshire Natural History Society

Introduction

From the Annan-Clyde Roman road north of the Dryffe a branch road led towards the Nith, past Roman posts at Lochmaben and Murder Loch. This may be mentioned in a charter of 1250, granted by Sir John Comyn to the monks of the Abbey of the Convent of Melrose, whereby he allows "a free passage through the middle of his lands of Dalswinton to their lands in Nithsdale" (Macdonald 1894a: 43). Comyn further "grants and concedes that if the aforesaid road, through inundations or its being long used by wagons, get out of repairs the monks and their dependants shall have full liberty to renew the road by ditches and causeways, or in any other way they please".

Beyond Carronbridge, a link road serving the Antonine fortlet above Durisdeer (Clarke 1952) rejoined the Annan-Clyde road near Crawford. Clarke (1953: 115-116) suggested that the Roman posts at Carronbridge lay west of the Roman road following the Nith towards the Durisdeer camps, and covered a ford on the Nith from which a road possibly ran into Galloway.

North of Carronbridge alternative routes suggested themselves. Approaching from Sanquhar, Clarke and Wilson (1960: 152) thought that the road might pass via a gap between Dalpeddar and Auchensaw hills, but, in view of the ravine-scarred east bank, accepted that the Romans might have crossed the Nith at Sanquhar to follow an ancient terraced way down the right bank to the ford at Carronbridge. Wilson (1989: 15) subsequently felt that this road may have lain too close to the flood plain, but Maxwell (1989: 72, Figure 4.2; 177, Figure 9.5) speculatively maps the Roman road as running close to this line from east of the fort at Drumlanrig to the ford on the Nith south of Sanquhar.

Apart from the difficulty of signalling along this lower level, due to dead ground and the almost certain tree cover, and the necessity of negotiating the very wet bottoms of the Marr and Burnsands burns from Taeholm to Burnmouth, and crossing the lower reaches of the burns above Craigdarroch and Eliock, such a route over much of its length would disadvantage troops in transit in the event of hostile action. Having failed in two day-long sorties to locate an acceptable Roman road running north from the vicinity of Drumlanrig, especially due south of Burnsands, we reviewed the literary evidence.

Gordon (1726: 18), despite the fact that he maps his Roman road farther to the east, asserts that, of two roads practicable for an army advancing from Burnswark, he preferred that through the valley of the Locher-Moss by Dumfries "and Dremlanrig", in which vicinity he considered Tibbers Castle to have had a Roman origin. His eighteenth-century road is shown to bridge the Nith, presumably at Carronbridge, proceed to Drumlanrig and return to ford the Nith farther north and follow the east bank to Sanguhar.

Maitland (1757: 193) considered the Roman road from Lochmaben to have joined that from Elvinfoot (Durisdeer) and gone into Ayrshire, and in 1722 Pennant and Lightfoot rode from Morton Castle via Durisdeer to Drumlanrig, returning via Tibbers Castle to recross the Nith towards Leadhills. Their itinerary is tabulated by Slack (1986: 70-75).

Apart from establishing two pre-turnpike crossings of the Nith, there is no indication in the above of a route north of Drumlanrig, although the situation of the Roman Fort there, as indicated by Maxwell and Wilson (1987: 19-20), confirms that in the first century A.D. a branch had left the Roman Dalswinton-Crawford road to cross the Nith, thus avoiding the gorge below Dalpeddar Hill.

Of no little interest, however, is a thirteenth-century charter mentioned by Macdonald (1894b: 317) and more fully by Clarke (1953: 116). This refers to the *Via Regia* (King's Highway) leading from Dercongal (Holywood near Dumfries) "on to Glencairn and thence to the passage across the marsh of Athenweran" (Macdonald), or "to Glencarn and along that road to the ford of a water course (or marshy expanse, *lat. sicus*), called Athenweran" (Clarke). *Sicus* normally translates as syke or small watercourse, and since Athenweran is clearly "the ford on the Weran" we might ignore the marsh except for the following serendipitous circumstances.

A study of the Glencairn tributaries led us to the remarkable coincidence that the Druidhall Burn, tributary to the Scar, received near its head the Cairn Burn and above the confluence was known as the Glenwhern Burn. Drawn by this sequence to cover the ground, we discovered that not only did an early road ford the Glenwhern stream (Ath an Weran?) just above the confluence of the Cairn, but a 1995

short distance beyond the crossing, the road, now recognisably Roman, proceeded by a passage cut through the marsh to the north (Figure 14).

Since our discovery, a fortlet has been located by R.C.A.H.M.S. at Kirkland (Glencairn) towards which a mediaeval road, perhaps Roman based, may have run from the south. Whatever the truth, we had at last located the Roman road south of Sanquhar. This we now describe from south to north.

Route E South: The Nith Valley Roman Road South of Sanquhar

In a field south of Cleuchhead Hill plantation a short stretch of terrace is largely eroded by the plough, but for some 50 yards (46 m) it runs north at NS 81550070 into the wood. At a minor stream, just within the trees, heavily cobbled ramps possibly supported a culvert. To the north, NS 81460075, where the hillslope is thirty degrees, the road itself averages fifteen degrees. Extending from 3.0 feet 6 inches (c.1.0 m) from the uphill terrace scarp, a compact 12 feet 6 inches (3.8 m) road surface is extended downhill by a shoulder of continuous cobbling, edged by heavy kerbing, along the limit of the 26 feet 6 inches (8.0 m) terrace.

The road leaves the plantation at a distinct projection of its north boundary wall, NS 81300091, to deflect from north-west to just west of north as it contours the hill to NS 81230124. On the south-west spur of Cleuchhead Hill, above the road at NS 81280106 with a west entrance facing it, is an oval hut foundation of turf, 26 feet 6 inches (8.0 m) by 25 feet 6 inches (7.8 m) overall.

Below two quarry pits, NS 81230124, the road turns to N.N.W. towards a steep col rising from the west on the approach to the Glenskelly Burn. A profile taken on the descent, NS 81200137, shows a terrace width of 27 feet 3 inches (8.3 m), of which the upper 13 feet (4.0 m) is scarped on the downhill side to a lower 9.0 feet 6 inches (2.9 m) level (Figure 15, profile a). But at the col on a slope in excess of thirty degrees we have the model for terracing a steep slope, hinted at in the above profile. Here, to provide a normal terrace would have demanded excessively deep digging. In the circumstances a dual carriage way was formed, NS 81150155, based on adjacent terraces 20 feet 6 inches (6.2 m) and 13 feet 6 inches (4.1 m), supporting respectively a 12 feet 6 inches (3.81 m) road, and a slightly hollowed road bed c. 8.0 feet (2.4 m) across. A third downhill adjacent terrace was formed by the later track from Druidhall, which runs alongside before crossing the Roman road (Figure 15, profile b).

Again, on the 'Well Path' on a side slope greater than thirty degrees, NS 90350495, the Roman road runs on a similar stepped terrace, while the later roads

Figure 14

Maps

Es

The Nith Roman road between Drumlanrig and Sanquhar.

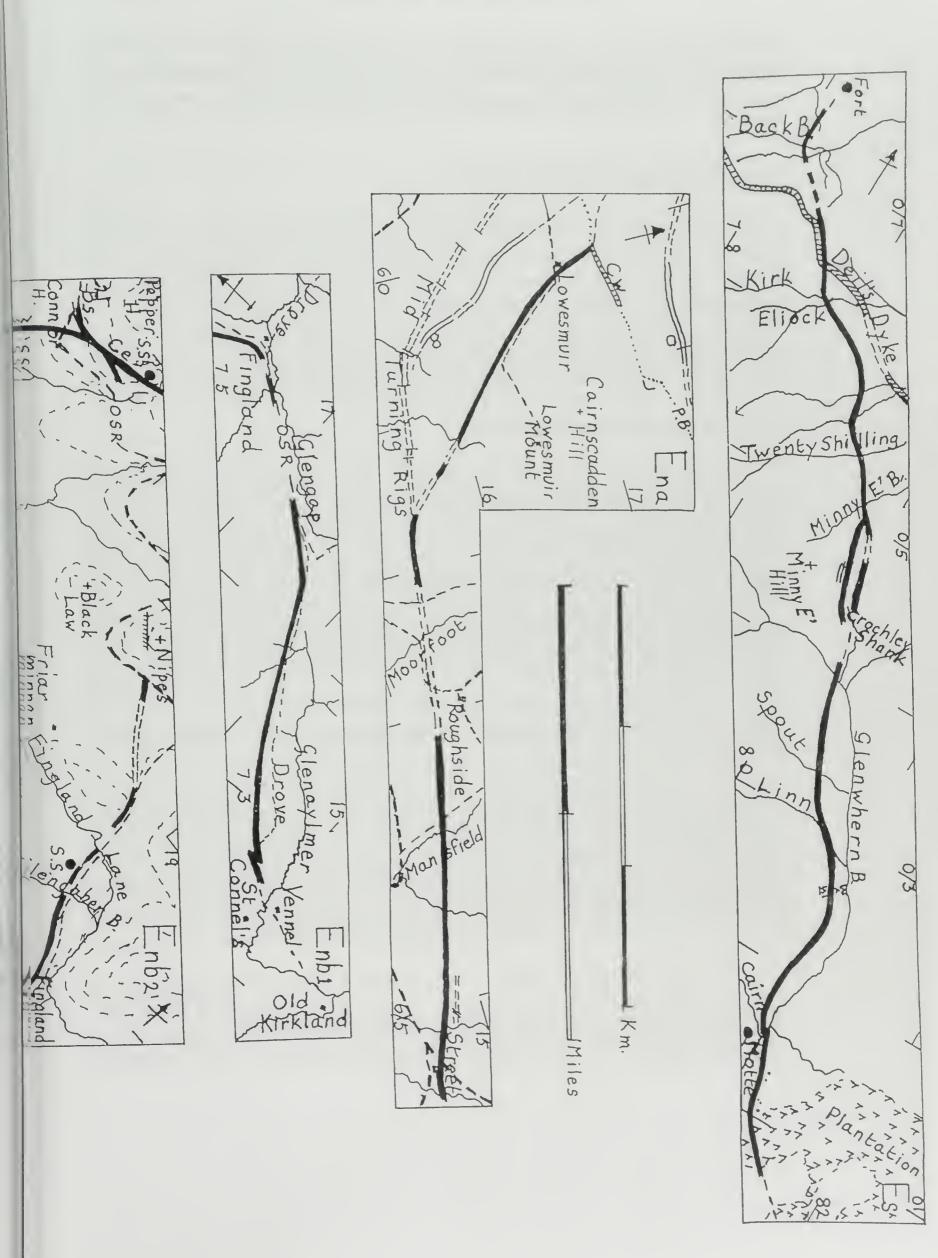
Ena

The Roman branch road into Ayrshire via Street, north of Sanquhar.

Enb1, Enb2

The Vennel-Fingland Roman trunk road connecting the Nith Valley with the Loudoun Hill road (Bs) and crossing the Garfe-Girvan road near Pepper Hill.

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terrace the side slope together well clear at a lower level (Figure 15, profile c). Farther to the north-west at the south-east foot of Well Hill, a not dissimilar profile pertains, but there hollow ways deepened by running water render interpretation difficult.

Cleuchhead Hill to Glenwhern Burn

Just beyond the col, the Cleuchhead road zig-zagged from N.N.W. to southwest to north-west downhill to ford the Glenwhern Burn (Ath-an-Weran?) just above its junction with the Cairn. The Cairn itself is forded to provide access to a fortified hill, the 'Motte', by a track which mounts the west side, NS 80960145. While the rectangular southern half of the 'Motte' could have accommodated a Roman site, there is no actual surface evidence, and although the short length of road between the hill and the Cairn ford may be Mediaeval rather than Roman, the track which runs north from Shield Cleuch and kinks to join it at the ascent to the 'Motte' entrance is patently more recent.

The main Roman road now runs N.N.W. from the Glenwhern Burn ford towards a sunken passage through marshland, but for a short distance traverses firm ground skirting to the east a local knoll, NS 81010191, where the overall width is 37 feet 6 inches (11.4 m). Along this firm stretch, cattle trampling has exposed the kerb and small metal breaks the surface. For 300 m north of the knoll, however, the road, now on a course just east of north, is sunk through wet land. Similar wetland crossings have been described, such as along the approach to Glen Artney (Route D) and at the Polbeith Burn headwaters (Route B south). The sunken roadway runs in a trench 27 feet 3 inches (8.3 m) wide, along the centre of which protrudes the heavily overgrown agger camber between drains c. 3.0 feet 6 inches (1.0 m) wide along the sides of the trench (Figure 15, profile d), NS 81010198.

Farther north, rising to firmer ground the road exhibits the classical terrace and central camber. South of the east-west boundary wall of Dunduff Farm outfield, NS 81070225, the former is 39 feet 6 inches (12 m) and the latter is 17 feet 9 inches (5.4 m). North of the wall, an earlier turf and boulder division crosses the road, leaving an 8.0 feet 3 inches (2.5 m) gap for a now slightly hollowed track to pass along the rear of the terrace, NS 81090228 - NS 81080240.

To the north the system bends N.N.W. at NS 81080246 to pass through a plantation strip, entering it at NS 81010263, again in wet land, as a discernible broad terrace which is still recognisable as it emerges from the north side of the wood, NS 80980270, although sunk in deeper moss as far as c. NS 80900286.

Just south of this point a stream section was trowelled, to reveal 1.0 foot 5 inches (40 cm) of marshy soil over an accretion of small stones in yellow clay of cementlike consistency, some 6.5 inches (16 cm) thick, overlying peaty loam. Probing showed this hard layer to continue northwards.

At the Linn Burn two hollow ways, and a metalled spit between, extend into the stream bed from the south, with a corresponding exposure of small stones in the north bank. These, however, have little overburden and the Roman ford is duly found a short distance downstream, with beyond it to the north, NS 80810298, the 29 feet (8.8 m) terrace recessing the hillslope and bearing the typical agger N.N.W. towards a small gate in the parish boundary dyke; before which it bends sharply north-west to pass under the wall and bend again N.N.W. along the west edge of a plateau, NS 80620312. The curve is accentuated by upcast from a major drain, and when traced from the north is entirely deceptive. Two visits and much careful traversing were required to establish the true course.

The road now runs towards the south wall of Glenwhern Farm infield, a 21 feet (6.4 m) agger on a 26 feet 3 inches (8.0 m) to 36 feet 3 inches (11 m) terrace, NS 80620318. South of the wall, NS 80540325, a turf and boulder dyke had once crossed the road, but is now reduced by animal traffic towards a gate in the stone wall. Within the infield, at the Spout Sike, the road is obliterated by a deep hollow descending the south bank, but the terrace scarp survives on the opposite slope, and on level ground above the Sike the agger regains its N.N.W. course, although initially masked by field clearance piles. It passes across the infield and beyond the north wall, NS 80340361, tends slightly farther north to clear almost tangentially the west arc of a circular fank, NS 80330372. Two quarry pits lie to the southwest.

Stream hollows dissect the agger as it runs via cuttings across a rise where, at NS 80350390, just east of the road and facing it, is a turf hut base 24 feet 9 inches (7.50 m) by 16 feet 6 inches (5.00 m). Beyond, the Glenwhern Burn is recrossed west of the Fauld Sike at NS 80250395. Considerable reduction by secondary traffic gives the impression of a well-shouldered track only 13 feet 9 inches (5.4 m) wide, but close inspection confirms that a road bed c. 39 feet 6 inches (12 m) wide had reached for the south bank. Erosion along the east side has cut into the agger to produce the shouldered effect. On the north bank, vestigial stony mounds are possibly the remains of a once substantial bridge ramp.

Crochley Shank

For a short distance a low disrupted mound edges the hill-slope to the east, while on the west a quarry pit scars a knoll, NS 80230401. Beyond, for some 200

Figure 15

Profiles

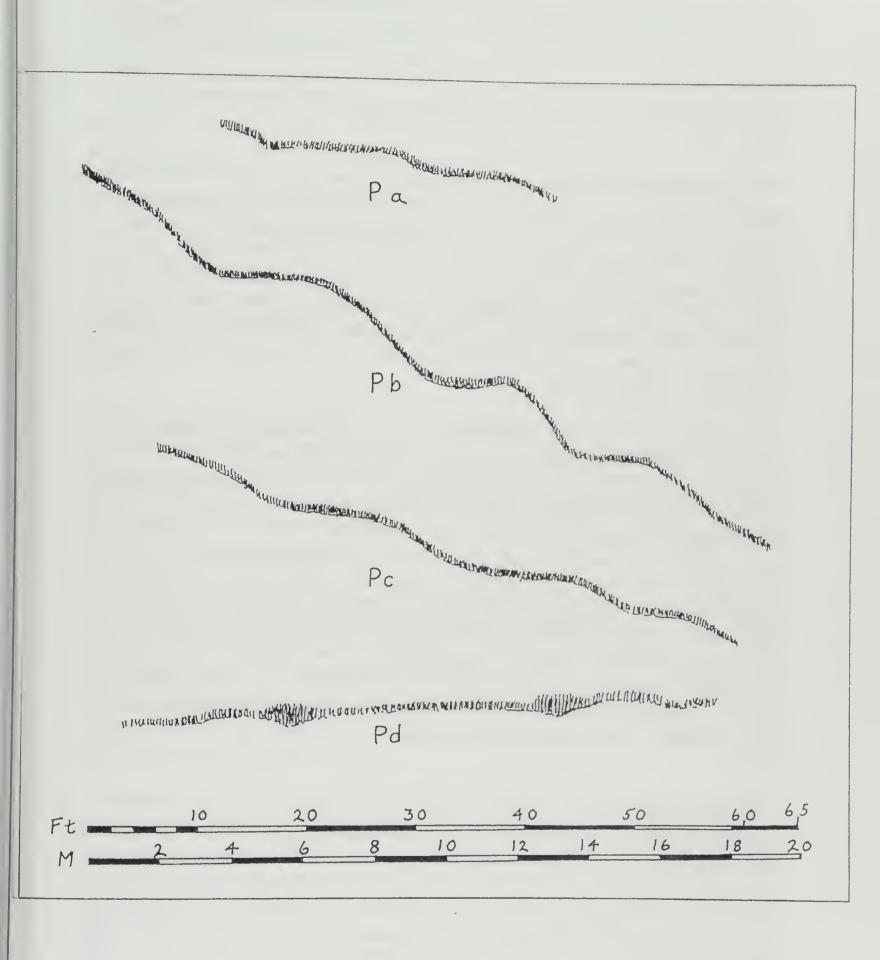
Pa Above Glenskelly Burn, NS 81200137.

Pb Above the Glenwhern Ford, NS 81150155.

Pc The Durisdeer Road. NS 90350495.

Pd

The passage through the marsh beyond the Glenwhern Ford, NS 81010198.



m on the direct N.N.E. ascent towards Crochley Shank, the road line is completely obscured by peat overgrowth and recent drainage channels. Similar obliterations on directly taken slopes have been recorded between Whitelees Hill and Loch Thom (Route A), on the climb from the Glespin Burn west of Douglas (Route C east), and on the slope from the March Burn towards West Foredibben (Route C west).

Yellow clay and stones are bared on course at a possible lower crossing of the Crochley Shank burn, NS 80230413, but the first true indication of road upslope is a faintly discernible 29 feet 9 inches (9.0 m) wide terrace traceable north-west to the head water gully of the stream, NS 80150433 - NS 80010448. A low mounded plunge carries the road to the now dry valley bottom, to rise and sink in marsh to the north. Here, as farther south, a passage may have been cut, but beyond the marsh the clearly profiled road runs from NS 79990455, a 21 feet 6 inches (6.5 m) agger along a 29 feet 9 inches (9.0 m) terrace with hollowed track between agger and rear scarp.

The fugitive nature of the road south of this stretch demanded several close surveys. We finally established that from c. NS 80600043, uphill of and west of the length recorded above, a terraced road runs clear of Crochley Shank gully head to attain the shoulder of Minny E' Hill, some 50 - 80 yards (46-67 m) above, before looping abruptly to rejoin the lower road at NS 79880495. On the hill shoulder it runs contiguously parallel with the lowest of three stepped terraces, from which considerable command of the route to the south, and of the Nith towards and well beyond Sanquhar, is afforded. No longer than 50 yards (46 m), these terraces do not convince as lynchets. We note here that on the Scroof Hill road (Route J) Dr. Lonie was confronted with the complication of some four to five terraces extending for some 50 m along the hillslope, NT 40704500, amongst which it was difficult to determine the actual road. Their purpose was not clearly agricultural. Similar multiple terraces exist on Dere Street as it rises northwards out of Chew Green.

Our initial conclusion that the road over Crochley Shank gully and the marsh beyond had suffered erosion and been replaced does not bear scrutiny. That such local realignments occurred is instanced at Outerwards (Route A), where a loop road round the west side of the fortlet had suffered flooding and washout due to the collapse of the rampart during abandonment, to be replaced by a loop round the east side to which the original had contributed, as witnessed by quarry pits dug through it (Newall 1976: 112, 117). At Outerwards, however, immediately the damaged length had been bypassed, the new road merged with the trunk. On the contrary, at Minny E' Hill not only does the loop reach from far downhill to the

95

south, well beyond Crochley Shank, apparently aimed for the terraces, but its abrupt deflection towards them from the north from a perfectly sound trunk road, NS 79880405, focuses attention on them.

They lie at the top of a long uphill drag from both north and south, with visual command in both directions. Were they intended as major halts, as required for columns on the march, or for wagon or pack horse trains? Whatever the answer, an upper road section exposed in the now dry headwater of the Crochley Shank Burn matches one revealed farther north on the trunk road by the Merk Burn. Beneath 5.0-8.0 inches (14-20 cm) of peat a 10 inches (25 cm) thick road of small cobbles in yellow clay, 19 feet 9 inches (6 m) wide, was laid on a 29 feet 9 inches - 36 feet 3 inches (9.0-11 m) terrace. The lower measurements apply to the Crochley Shank section. In each case the uphill kerb is of a single stone course, while the downhill is reinforced by additional facing and capping stones (Figure 16, section 1).

At Minny E' Burn a change of direction occurs c. 50 yards (46 m) east of the stream, and the crossing inclines N.N.W. at NS 79780510. A built culvert edge, over 1.0 foot 9 inches (0.5 m) deep, descends the burn-side from the face of the cobbled road mound. Probably the culvert was flagged and the road carried over it, for at some time when the passage had become blocked the water had been dammed back, thus resulting in the reduction of the road by wash for some 50 feet (15 m) south of the crossing.

The course continues towards Twenty Shilling Burn, passing under a mapped fank, NS 79600535, to switch abruptly north-east and plunge steeply down the south bank to a bridge pier at the head of a cascade and minor gorge, NS 79620542. As it mounts from a corresponding pier on the north bank, from north-west to N.N.W., to resume course, it assumes a camber.

Merk Burn to Kirk Burn

The Merk Burn is crossed at a slightly easterly kink to allow a graded passage, but after a N.N.W. ascent of the north bank the course becomes more northerly. At the crossing, NS 79370564, culvert blocks are overgrown in the sides of the narrow stream channel. Again, as at Minny E' Burn, there is a hint that the road had been ramped slightly to pass over the culvert, almost in the manner of a raised ford, in case of flood. A built stepped fall three courses high, a short distance upstream, would provide the necessary turbulence to ease the force of the current against the culvert mouth and the overriding road edge during spate. Beyond this burn the road is fugitive, swinging in broken ground to avoid outcrops. Initially coursing N.N.W., it gradually swings through north-west. A clear profile, NS 79250548, is of a 19 feet 9 inches (6.0 m) road on a 30 feet (9.1 m) terrace, reduced along the west side by hollow-way traffic. The road then passes under a fence, NS 79180603, which follows it for some distance before diverting, at NS 79020610, leaving the agger to run clear towards the Eliock-Kirk Burn confluence at NS 78820621. The main stream may have been bridged over the gorge just below this junction, where the sheer rock faces are 14 feet 9 inches (4.5 m) apart, but on the west bank a spread of possible bridge pier cobbles extends above the junction beneath the footings of a recent wooden bridge over the Kirk Burn. It is possible, therefore, that the streams were crossed at the confluence by a double span resting on the rock spit between them. This could not be determined on the east, due to the erosion of the road for at least half of its width by an unmapped stream from the south, which deflects along the side of the road. The 40 yards (36.5 m) long exposure reveals a clay mound topped with clay and cobbles, which rise gradually towards the gorge edge. As they do, the underlying clay yields to a bridge ramp of boulders over which the clay and cobble road assumes a heavier cobbled surface (Figure 16, section 2).

At present the bed of the minor stream is blocked by a series of stone ridges from bank to bank. Between these and boulders placed along the sides the bed is filled with cobbles. An overflow channel upstream clearly shows that formerly in times of spate the stream diverted at least partly towards the main burn some way above the confluence. This treatment, which would reduce the flow against the side of the road, cannot be dated. The lowest ridge and cobbled level aligns with a more recent track which leads towards the site of the wooden foot bridge.

In the gorge bed below the confluence are two rock-cut depressions, 10 feet (3 m) apart and 2.0 feet 3 inches (0.7 m) and 2.0 feet 5 inches (0.8 m) from the east and west sides respectively. The more westerly, 1.0 foot by 1.0 foot 4 inches (30 x 40 cm), is 6.0 inches (15 cm) deep, and the other is 8.0 inches (20 cm) across by 1.0 foot 2 inches (35 cm) deep. Whether they held bridge props is uncertain.

The Sanquhar Crossing

This bridging point is due south of the known major mediaeval ford on the Nith at Sanquhar Castle, and c. 1.8 miles (2.35 km) from it. It was therefore essential that from this point onwards the road be traced with care, for much before this we had expected it to turn towards the Sanquhar crossing. From here, to where we were finally obliged to leave it, our work on the road was meticulous in the most difficult terrain. In all, three visits were required to satisfy our queries about the Eliock-Kirk crossing, and four were spent in taking the road forward little more than a mile, but a vital mile, farther to the north-west.

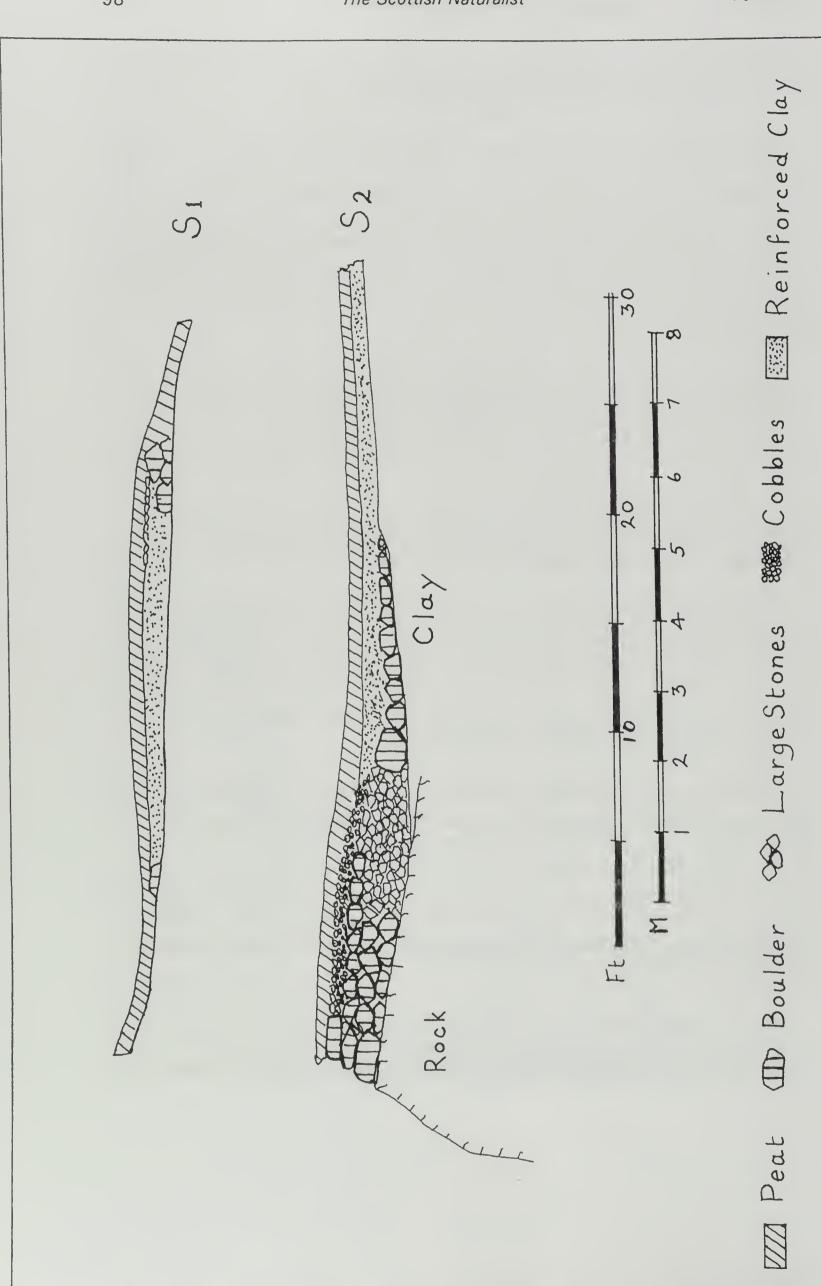
Beyond the Kirk Burn the road runs close to the north-west aligned fence along the river bank, but gradually, as betrayed by the merest hint of agger in rough hummocky ground, it moves away to align with a strictly linear stretch of the Deil's Dyke, NS 78670641 - NS 78520662. Much probing was required along this line. Cobbles of the Roman road bed exposed by a stream south of this length indicate the significance of a rough low mound, which runs along the east side of the Deil's Dyke to NS 78550659 before fading. Here it would seem probable that the Deil's Dyke had been built along the west side of the road.

Further stones have been upcast from a stream clear of the Dyke at NS 78430673, and north of the coincident length of road and Dyke a final short and scarcely discernible length of terrace reaches a stone boundary wall, NS 78230692. Halfway across the next field northwards the agger is apparent from NS 78150697 to NS 78100700, latterly emphasised by a hollow way which is evident crossing a stream just north of the field boundary. Slightly farther north-west the mound and hollow track rise clear to reach a ford on the Back Burn, NS 78100702 - NS 78090709. A short distance upstream a ridge of stones is set into the river bed.

A north-east diagonal riser, now almost completely dissected, slipped, and obliterated, and surviving only at its bottom as a short clay and cobble ramp, once carried the road north-east up the north bank of the Back Burn. Above the burn a faint low mound heads due north, aimed precisely on the east edge of a mapped sheep fank, NS 78080742, and just to the west of an oval univallate earthwork with traces of a surrounding ditch, NS 78120753.

All traces, however, fade just north of a minor stream, NS 78110727. There, stream action has almost completely excised the lower east edge of the terrace, and partly the hard compacted cement-like layer of rammed road-metal in grey clay on a cobbled base over clay. This final section is of a road 1.0 foot 2 inches (0.35 m) thick and 22 feet 4 inches (6.8 m) wide, on a low terrace 36 feet 9 inches (11.2 m) across. A short distance off, c. NS 78100730, the road is lost. Where last detected it was closing on the Nith, aiming close to the Nith-Euchan confluence and to the north of Sanquhar.

Over this last field above the Back Burn there are two broad mounds, c. 24 feet (7.3 m) wide, one on each side of the Roman road, and although parallel to each other they are at an oblique angle to the earlier features. These are presumably



98

Figure 16

Sections

S1

Crochley Shank Burn head.

S2

The Eliock-Kirk Burn bridge approach.

field divisions comparable with the "mid turning rigs" encountered farther north (see Route E north A, below).

The Major Nith Ford South of Sanguhar

The ford towards which we had expected our road to turn lies south-east of Sanquhar Castle, NS 78800855, north-east of Old Mains ruin. While a track has reached it from the direction of the Castle, the north bank of the Nith has been scarred for some 80 yards (73 m) by former traffic converging on the ford. From the south, early in the present century, horses were taken across to the smithy in Sanquhar, but all wheeled traffic has for long been barred by at least two and possibly three successive unbroken flood dykes along the south banks.

From the ford a road mound, spread by the plough to a width of 29 feet 9 inches (9.0 m), curves up-river to pass under the present track from Old Mains to the road east of South Mains. Mr. Greenshields of South Mains estimated the old road base to have been at least 18 feet (5.5 m) and at maximum 24 feet (7.3 m) across, when recently ploughed.

No connection was found between the ford and the Roman road, nor could any earlier traces be located on either side of the track between Old Mains and South Mains, nor could any other ford be recognised on the Nith between the major ford and the mouth of the Euchan.

Possibly by the 15th century A.D. the main road from the ford was the mapped track from NS 79100700 over Fardingmulloch Muir to the east bank of the Glenwhern-Druidhall Burn. The 15th-century tower house of Eliock is passed from north-west to south-east by a well-metalled track which may be part of the same mediaeval road-line.

Cleuchhead Hill to Drumlanrig

South of Cleuchhead Hill the route of the Roman road is problematical. We had envisaged a possible connection with a road travelling west from Drumlanrig, a road now rendered almost certain by the discovery by R.C.A.H.M.S. of the Roman site at Kirkland (Wilson 1989: 13). Nevertheless, the "Athenwern" road, as plotted around Cleuchhead Hill, appears to incline towards Drumlanrig (Figure 14).

The focal point for any road from the north would seem to be the ridge between Holehouse Farm and Belstone Mill. Holehouse, an ancient name, is pronounced locally as Hollous, precisely as a former farm-house near Neilston, Renfrewshire, which was known as 'The Hollous', and in 1553 rendered as Hoilhous (Gardner 1885: 147). The name probably derives from the Cymraeg *hoel* = track or road. The language persisted in south-west Scotland until the Middle Ages. From it may derive Wheel (the Wheel Causeway), the Well Path and Well Hill (above), the Wol Rig, an ancient clay road located by Dr. Lonie, and many names in Hole, Holy, Holly, etc. along Roman and other ancient roads.

The road from a cottage north of Bellstone Mill towards Holehouse is not mapped in the 1849-50 O.S. map, nor is a much older road which it crosses. The latter runs from the plantation east of Holehouse, NS 83350035, as a deep ditchlike hollow way, which to the west of the later road crosses the field as a 29 feet 9 inches (9.0 m) wide mound to NS 83200025, where it turns more northerly to cross the Caird's Cleugh Burn by a solidly-metalled ford and join the track south from Holehouse, where, very significantly, it terminates. The Holehouse track follows the west side of Caird's Cleugh Plantation strip, aligned on the Belstone sawmill crossing of the Marr Burn. Above the mapped track, within the woodland to the east a possible firm road-line, against which field drains terminate, a diagnostic of a hard core, extends at the south end of the ridge into the level field beyond as a broad rig. Roughly aligned with this, a terraced track, some 18 feet (5.5 m) across, enters woodland east of Belstone. Although this shows no overt Roman characteristics, the line should be considered in any further research in the area.

Drumlanrig Fort Dating

In support of the evidence for a second-century A.D. reoccupation of Drumlanrig Fort (Maxwell and Wilson 1987: 22), are two sherds of decorated second-century Samian bowls recovered from the riverside field at the west end of the fort site. Scattered burnt daub in this field is a further pointer to occupation. The sherds were left in the Estate Office at Drumlanrig Castle (on 1.6.1985).

The Roman Road North of Sanquhar

In our introduction to the Roman roads in Strathclyde (Newall and Lonie 1990: 5) and subsequently (Newall and Lonie 1991a: 129), we have indicated that the Roman road north of Sanquhar, in view of its alignment, might be a secondary link towards the west coast, and have suggested that it was feasible that the Nith road should have proceeded continuously via Loudoun Hill to Barochan. This has now been established. We have, therefore, to consider two roads north of Sanquhar, viz. the Nith Valley road (Route E north A) and the Nith - Glengaber - Pepper Hill road (Route E north B).

Route E North A: The Nith Valley Road North of Sanquhar

North of Sanquhar Castle, Clarke and Wilson (1960: 152) considered that the putative Roman road showed near an old quarry on the hill road from Crawick, NS 76501200, and beyond, as summarised by Wilson (1989: 15), and then proceeded via the farms of Glenmuckloch, Hall, Knowehead and Corsencon, to Street. Beyond Street, we have examined the line via Mounthope and Roughside, which was suggested but not surveyed by Clarke. In view of the recently discovered fortlet at Crawick, near Sanquhar (Maxwell and Wilson 1987: 22-23), we have also scrutinised the approach to the quarry mentioned above. Details under (a), (b) and (c).

(a) Quarry on the hill road from Crawick.

On the south-east side of the Fingland-Crawick length of the Old Sanquhar Road, at the lower end of an acute swing from E.N.E. to north-west, NS 77131224, a 13 feet 3 inches (4.0 m) wide mound runs E.S.E. along the south side of an 18 feet (5.5. m) hollow way. Road metal shows in the Bridge-end Cleugh, beyond which the features are confused by a turf bank which runs along the line with a parallel bank to the south. All pass under the junction of a north-south bank with an east-west wall, NS 77351213, to reach a stream, NS 77451210. To the east, a terrace edge fronting a low bank suggests a deflection to pass under a N.N.W.-S.S.E. dyke as a hollowed track towards a field gate, NS 77921203.

West of the Old Sanquhar Road a broad hollow runs to a conspicuous dip in a boundary fence, NS 76901238. No trace survives in the next field, but from its west wall, NS 76651264, a short length of terrace fronted by a hollow way descends to the stream edging Gateside Plantation on the east. Timbers in the east bank, and boulders in the west, indicate more recent bridging no wider than 10 feet (3.0 m). A mound above the west bank is narrowly gapped for passage, but deep drainage gullies along the north side of Gateside Plantation prevent an estimate of dimensions or direction.

(b) A length of well-cambered road, 23 feet (7.0 m) wide, runs east-west north of the fortlet on Bankhead Farm, NS 79501225 - NS 74801225, and curves southeast towards the hill road from Knockenjig. This is possibly, though not certainly, a mineral road. Strathclyde Roman Roads: Nith Valley part 1

(c) The natural projection of the March-Street road via Mounthope and the Ford on the Muirfoot Burn.

From the north side of the Glen road opposite the ruins of Street, where Wilson suggests a possible Roman site (Wilson 1989: 15), a broad mound 23 feet (7.0 m) wide, NS 65351460, runs north of west to NS 65261465, where, at the junction of a stone dyke from the south with the main east-west dyke, it passes to the north side of the latter to edge the south tip of a rocky spur before again passing under the main dyke south of Upper Linn, NS 64481495. Along the rock scarp edge, north of the road, are numerous quarry pits including shallow borrow pits.

A culvert, NS 65001477, of which the east side has been removed by drainers, is 24 feet (7.3 m) long, and within a few metres the 24 feet (7.3 m) camber rises from a broad level 30 feet (9.15 m) across. Upstream a later track is betrayed by a wall-buttressed bridge pier.

South of Upper Linn the road is partly overlaid by the east-west stone wall, and partly by an earlier turf dyke bounding a plantation strip just south of the wall. Within the plantation, traces are initially obscure, but, on comparison with the turf mound and ditch which bound the south edge of the plantation, it can be seen that the apparently bolder mound limiting the north side is raised by having been based on the agger, on which it rises clear of the ditch which has partly removed the underlying road. Allowing for the faint upper scarp north of the wall, and for the above ditch and mound, we can detect the low south shoulder of the agger.

Mansfield Burn to Muirfoot Burn

West of Mansfield Burn the road has passed completely to the south of the wall and, fortuitously, the plantation mound and ditch have swung upstream to leave conspicuous the low agger, 24 feet (7.3 m) wide. Beyond, the course is faint over marshy ground, and at Hall Burn, NS 63651510, an equally fugitive much-eroded terrace, inclined downstream, is faced on the north bank by a steeper, partly hollowed, incline which restores the slightly north of west course.

Mr. Graham of Mounthope Farm indicated the probable continuation in an old plantation strip west of the farm. Across this a visible mound was traced diagonally, NS 63701512 - NS 63331524. At the Roughside boundary just beyond the strip, a bold agger, 27 feet 8 inches (8.4 m) wide, ran for some 150 yards (137.2 m), gradually passing under a stone dyke, NS 63151526, and an earlier wide turf boundary bank to the north, in the construction of which obvious traces

of the road agger had been removed; but a continuation could be traced in the deeply-rutted reed-grown ground south of Roughside as a dark linear crop mark or break of slope aligned with the ford on Muirfoot Burn, NS 62451538. There heavy stone bottoming, much disturbed but otherwise ignored in later fording, suggests an earlier road.

East of the ford a long spit, reduced along its north side, carries a cobbled layer in suspension, again suggesting a former higher road level. To the west, several tracks rise from Muirfoot Burn towards a now sunken road which carries a shelf, the residue of an earlier higher road, high along the north side. This aligns with a bend in the High Polquheys road, NS 62251540, and a deflection in the field boundary beyond, NS 61951543. In line is a clear terrace, 34 feet 9 inches (10.6 m) wide, with an agger 28 feet 3 inches (8.6 m) across, readily traceable to c. NS 61731544. Recent drains follow the sides, and against these old plough rigs cease, but later shallow furrows cut through the camber.

At NS 61731544, although there is the faint hint of a terrace running diagonally upfield, the agger appears to edge farther north of west to reach the east fence, NS 61651548, of a plantation strip, the Polquheys - Rottenburn March.

West of the wood, but not strictly in alignment, a broad agger crosses two fields to reach a second plantation, NS 61201562 - NS 61151563, where a diagonal break provides access to a further disaligned mound running to the east bank of the stream which forms the Rottenyard - Lochhill March, NS 60951567.

Lochhill-Rottenyard

To the west, further lengths of agger appear, but present problems. In some places the lengths are not aligned from field to field, and in other places the mound is narrower or more steeply scarped and there is no terrace. Fortunately we visited Mr. Young of Lochhill Farm, who explained the broad lengths of apparent 'agger' as 'mid turning rigs', where land was initially limited uphill, then later extended by further ploughing. The intermediate rigs in adjacent fields would fall roughly into line, but since the ploughing length was not precisely measured they would not coincide exactly. A long field might have several 'turning rigs'.

He believed that the 'road' east of the Rottenyard March was a turning rig, but that the broad terrace and agger through the heavily rigged land above Polquheys could not have been one, since the plough system there had not been of the type he was discussing, and against the extreme width of the remains there he estimated the turning rig width to have been in the nature of the normal-paced head rig, i.e. c. 18 feet (5.5 m). In conclusion, he indicated another old road, the upper road to Lowesmuir, and a lower road length which had apparently run in the same direction. Of the two, the upper road may well be the continuation of the Roman system, when we recollect the possible diagonal terrace running up-field from NS 61731544. The mound over this field, which tends to fade and, apparently, change course mid-way, may therefore be partly Roman road and partly turning rig.

The Upper Road to Lowesmuir

In the bed of the Lochhill-Rottenyard March burn, NS 61231593, cobbles are much denser than elsewhere along the stream, and some 100 m to the north-west, at NS 61101605, a terrace develops which, 33 feet (10 m) wide, travels towards a woodland gate, NS 60881620. A sinuous turf dyke along the south side wanders erratically across the course.

Within the wood, the terrace is flanked on the south by this dyke and on the north by a stone wall, and as it travels north-west the turf dyke moves across the terrace and the slight camber which it now carries, while the stone wall runs occasionally on top of the turf dyke. From NS 60701638 this complex is roughly parallel with and south-west of the road from Lowesmuir to Lowesmuir Mount (ruin). Just skirting the 'Old Quarry', NS 60601652, it crosses the south boundary of the field south of Lowesmuir, NS 60421666, and runs north-west to pass under the above road, NS 60321081, into the plantation to the east.

Along the line, difficult to trace through the trees, but first located in the plantation to the south and followed across the field south of Lowesmuir, a hollow way has followed the south-west flank of the terrace. This now appears in the field east of Lowesmuir where, east of the latest road which runs to a now breached and ruinous bridge over a headstream of the Meadow Burn, the now very wide hollow way separates it from the earliest road, a broad mound from NS 60281692 to NS 60131723. At the approach to the bridge, hollow ways descend on either side of the extant bridge pier south of the stream, and it is possible that the earliest road was erased by the deepened graded descent to the bridge.

Towards the fording point beside the bridge, a broad dry mound along the line of the parish boundary is possibly the continuation of the Roman road (Route C west) from the Avisyard Burn. This road was followed by the parish boundary from just west of Aird's Hill to the Avisyard Burn, and the association may well have continued to the above junction, as indeed it does further west (Newall and Lonie 1991a, Figure 9, maps Cw2 and Cw3). Compare map Cw2 with Figure 14, map Ena. Of interest, therefore, is the remarkable deflection of the parish boundary on the spur of Cairnscadden Hill and a rounded angle of low turf-mound like the corner of an enclosure, of which the arms, if projected, would reach the points of deflection of the parish boundary at NS 61201747 and NS 61121737. Suggestive of the south-east corner of a rectangular enclosure, possibly subtended, as suggested above, from the offset straight length of the parish boundary, the arms of turf could not be pursued in very rough, much dissected country (Figure 14, map Ena).

The Lower Road to Lowesmuir

West of East Lowes Plantation and some distance uphill, NS 60601580, a faint terrace rises to a bold mound which passes almost contiguously a subrectangular enclosure, NS 60401597, whence it reaches the north-west corner of the next field, NS 60281032, again as a slight terrace, turning north-west to cross the Lowesmuir Belts fences, NS 60251035 and NS 60121648. From there it runs N.N.W., again a 30 feet (9.2 m) wide mound, reaching for the plantation strip south-west of Lowesmuir.

Close to the rectangular enclosure and to the north-east lies another of like dimensions comparable with a similar structure south of Avisyard Hill, NS 60951760. Like the Lochhill sites, this also lies beside a road, the presumed 17th century track which left the Roman line at the Avisyard Burn, leaving the earlier road to point the course for the parish boundary (Newall and Lonie 1991b: 15-16). Mole-hills within the Avisyard enclosure had produced a square-headed iron nail fragment and a fair scatter of cinders.

With Mr. Young's permission, a small section was made at the south-west corner of the lower Lochhill enclosure and a one-metre square pit sunk near the centre. Under some 5.0 inches (12.6 cm) of dark soil the peripheral mound was of forced brown earth 2.0 feet 4 inches (0.71 m) deep, laid directly on olive-buff till subsoil. Within, under a 6.0 inch (15.2 cm) depth of plough soil, lay a 3.0 inch (7.6 cm) thick floor of stony brown clayey earth with coal and cinders trodden it. From it came part of a clay pipe bowl, decorated with broad incised fluted leaves and dimpled flower head, and a small sherd of yellowish porcelain with thin crackled yellowish glaze. A late 18th - early 19th century date is probable.

The Lochhill site is 76 feet (23.67 m) by 69 feet (21.03 m) overall, enclosing 40 feet (12.19 m) by 31 feet (9.45 m). That south of Avisyard Hill is 85 feet 6 inches (26.06 m) by 63 feet (19.2 m), enclosing 49 feet 3 inches (15 m) by 33 feet (10 m), with a small annex 19 feet (5.8 m) by 11 feet 6 inches (3.5 m) within, at the north-east angle.

We conclude that the lower road to Lowesmuir is a post-Roman road, and that the Street - Polquheys road, continued by the upper road to Lowesmuir is a Roman link road, joining the lower Nith road with the Garf-Girvan cross route (Route C).

It remains to consider the course of this road east of Street Farm, the north end of which overlies the road. To the immediate E.N.E. lie the round-ended foundations of an earlier build adjacent to the road. From there, a prominent mound followed by field fences runs east towards Garclaugh Burn, on the approach to which it veers sharply north-east in the descent of the west bank, reverting to an easterly direction as it mounts the opposite side in a now deepened hollow. To the east several courses are possible, but while these have been surveyed, further research is necessary. In this direction the route of necessity passes Hillend Knowe. This Wilson (1989: 15) equates with the Merkland Knowe, from which a Samian sherd was recovered (Robertson 1970: 224).

Route E North B: The Vennel-Fingland-Glengaber-Pepper Hill Cross Road

In our introduction we suggested that the Loudoun Hill - Pepper Hill road (Route B south) probably continued south to link with the Nith road (Newall and Lonie 1990: 5). We have now established this route by identifying as Roman an ancient road from Vennel in Kirkland, by Fingland towards Pepper Hill (Figure 14). This identification rested initially on the characteristically Roman line, and the grading and structure of the road, but is verified by the discovery, on the north-east spur of Glengaber Hill, of a Roman signal station site in clear view of Pepper Hill.

From the ford north of Vennel a hard track is traceable to NS 72751520, where a cambered way develops as it mounts the extreme spur extending from Little Kirkland Hill, in a slightly sinuous course which soon zig-zags markedly and reduces to a broad hollow way, one of five which scar the hill face in the climb from NS 72801523, just west of a settlement of turf huts. Here the gradient is c. 27° or 1: 3.5. From this point, the mapped 'drove road' to Crawfordjohn swings east from the hollow-way cluster to follow more closely the bank of the Glenaylmer Burn. The Roman road continues through rough pasture to NS 73101560, where the now firm, slightly cambered, surface has been accepted as hard stand for a settlement of three turf huts which completely overlie it, while a fourth flanks the road to the north-west.

The huts are of the round-ended widespread turf-walled type of mediaeval to seventeenth-century occurrence, one having slight hollows in the wide walls suggestive of crucks (Newall and Lonie 1991b: 15-16).

At NS 73251572 the road deflects slightly from north-east to E.N.E. above the flank of the Glenaylmer Burn. At a stream crossing, NS 73811606, bridge piers lie just downstream of a mapped ford, while a hollow way which has swung on and off the Roman line passes between bridge site and later ford. Between this and the next stream, a short distance to E.N.E., the road, 20 feet 4 inches (6.2 m) wide lies on a terrace fully 35 feet 2 inches (10.7 m) across. The second stream was also bridged, and although only bare rock now lies below the road mound on the east bank, the eroded west bank reveals the under cobbling of the road here more heavily built as on the normal bridge approach. Again the built ford (unmapped) lies upstream, with hollow way between it and the bridge vestiges.

Just each of the crossing, the road is flanked on the south by an oval enclosure, NS 74001612. Hollow ways continue on and off line.

A profile, NS 74361630, showed the 20 feet 4 inches (6.2 m) road to occupy a 30 feet 6 inches (9.3 m) wide terrace, and at a minor stream a short distance to E.N.E., where the road switches from E.N.E. to north-east, NS 74401633, 20 feet 4 inches (6.2 m) of small metal in brown earth is separated, by some 6.0 cm of peat, from an upper level of larger cobbles 13 feet 3 inches (4.0 m) across. Here the road terrace, at least 26 feet 3 inches (8.0 m) wide, has attracted the 'drove road'.

The road now closes with the Old Sanquhar Road and at NS 74721675 passes under it west of a round fank. Thereafter, the occasional hint of Roman terrace scarp may be seen in the loops on the west side of the more sinuous Old Sanquhar Road until the Roman road again passes fully to the north-west side, NS 75051720, to run to a ford, NS 75151745. Along this length the road mound has been almost completely obliterated by peat cutting, except for a short distance south of the ford. Farther north, for a short stretch in the curve of the modern road, some 4.0 metres of the Roman terrace is exposed to the east, NS 75251750, before it again passes to the west to run under the sheep pens south-west of Fingland. Beyond these it mounts, in a abrupt 1:4 rise, the spur of Hog Hill to reach the head of a short water course west of Fingland. Here, despite the steep slope and reduction by slip, the road mound is obvious from below.

It then terraces the enclosed meadow of Fingland, NS 75331762 - NS 75241785, first recognised under snow (on 1.2.86). Beyond the meadow it 'curves', in two distinct switches of direction, round the foot of Hog Hill, as indicated by Mr. Angus Clarke, shepherd at Fingland, who still follows it with his tractor, a firm enough track despite the peat over the actual road. This has now

1995

turned from N.N.E. to N.N.W., NS 75241785, to north-west, NS 75201800, and then to W.N.W., NS 75001828. As it reaches for Glengaber Burn the terrace is 27 feet 3 inches (8.3m) wide, NS 74951830, but erosion and massive peat overhang frustrated the search for a road section at the burn bank.

North of the burn there is no obvious trace, but from c. NS 74901838, in very broken peat-land, a faint terrace may be traced, becoming more evident though still fugitive as it runs towards the south-facing entrance of a signal station ring ditch site, NS 74821850, before passing the east side of it to run downhill and be lost again in broken marshy ground on the approach to Fingland Lane, NS 74821862.

Glengaber Spur Signal Station

The Roman signal station on Glengaber Spur is a typical ring ditch site with outer mound and raised central platform, standing some 2.0 feet (0.61 m) above ground level. This central area, some 26 feet 2 inches (8.0 m) across, is surrounded by a 9.0 feet 10 inches (3.0 m) wide flattened bank, within a 4.0 feet 8 inches (1.4 m) wide ditch, beyond which the outer upcast bank is also c. 4.0 feet 8 inches (1.4 m) across. The entrance is marked by a break, c. 3.0 feet (1.0 m) wide, in the south bank and ditch. No similar structure has been found in the immediate area, despite extensive search on local ridges and tops for just such a site.

Where the road passes the ring ditch it is aligned on the east shoulder of the hill to the north of Fingland Lane. Across this shoulder, NS 74801888 to NS 74781902, a broad terrace, and in places a mound, can be traced towards the east side of a recent quarry, NS 74781902.

South and north of this stretch no continuous road traces were recorded, despite three traverses taken between White Hill and Nether Blacklaw over dissected, tussocky, largely wet moorland under thick peat. In the circumstances, the following points have significance: (a) The road from Friarminnan Ruin, and (b) the dry ridge running north-west towards Nipes.

(a) The road from Friarminnan

This road, instead of crossing the lower reach of the Friarminnan burn to make direct for the Old Sanquhar Road, follows a circuitous route involving firstly an E.N.E. length along the north bank of the burn; then a crossing to the south bank by a wooden bridge, the last of several now gone; then a short easterly stretch; followed by a sudden switch south towards the quarry mouth, NS 74781902. It would clearly make sense if an early road had run from this quarry point more

directly towards the crossing point on the burn, and if the later road to Friarminnan had then run direct to the farm from just north of the crossing.

Air photographs examined in the Scottish Development Department Air Photographs Library (now held by R.C.A.H.M.S.) show a clear light band from NS 74681875, just north of Fingland Lane, where a wide diversion of the stream northwards may suggest an underlying obstruction, to NS 74561911 on the Friarminnan Burn, a recognised fording point downstream of the wooden bridge site. This grassy band was noted on ground survey as providing a well-graded route between the two points, but no definite road structure could be found on the directly taken uniform slopes involved. In such circumstances, Roman roads may be slight structures, no more than a cleared way with a thin central metalled strip.

Inspection of the fording point not only indicated that several tracks converged on it, but that, at NS 74561911, a wide cobbled road-bottom had reached the ford. Higher, narrower metalling, separated from the lower by peat, points to later recognition of the fording point prior to the erection of the first bridge.

(b) The dry ridge running north-west

North of the ford, only a faint track could be pursued shortly through rushes, but beyond the rushy level, a broad ridge, the highest point in the broad moorland expanse, develops and runs north-west towards the Old Sanquhar Road, c. NS 74151968, to pass its north-flanking fence just to the east of an entrance. Along this ridge, discontinuous suggestions of firm, occasionally mounded, track and hollow way may be followed, and just south of the Old Sanquhar Road for a short distance runs the obvious suggestion of a length of broad cambered road mound.

Uphill of the Old Sanquhar Road, a terrace across the lower shoulder of Nipes, c. NS 73901980 - NS 73801987, is aligned slightly farther westward, and, when projected, points in the general direction of the junction of Routes B south, C east, and C west on the south spur of Pepper Hill (Newall and Lonie 1990: 4-5). Unfortunately, beyond Nipes Hill all is lost in dense woodland. Under this blanket lies the road length recorded from the March Burn to the Lairds Burn (Newall and Lonie 1972: 14, 24-25). The complex ford on the latter has been obliterated and replaced by a culverted forestry crossing-point and the earlier roads are marred for some distance, especially to the east of the burn. All sites recorded in the vicinity lie within woodland.

We may be sure, however, that the Nith road did reach the junction on Pepper Hill, to continue via Loudoun Hill and Barochan Hill Roman forts to cross the 1995

Clyde and eventually continue as the Highland Boundary Fault Frontier. It is possible that south of Stoney Hill the drove road, which crosses Penbreck to join Route C west of the Lairds Burn, followed a Roman short cut for traffic between south and east.

Discussion

We have suggested that the normal point to point method of road construction would allow scouts on the march to signal back along the line (Newall and Lonie 1990: 20). In the present case, the somewhat circuitous route dictated by topography would have rendered such a procedure extremely difficult. There are too many blind pockets *en route* and, once the shoulder of Little Kirkland Hill has been mounted, all contact with the Nith Valley is lost. Moreover, not only is the Vennel-Fingland road largely confined to lower ground among the hills, but from Pepper Hill to Auchendaff the Garf-Girvan road (Route C) is likewise vulnerable. Hence the necessity for a tighter signalling control. This we have not recovered in its entirety, and further research is invited.

From Glengaber Spur Signal Station, Route C, for nearly 5.0 km in its passage across the slopes of Stoney Hill and Pepper Hill, as seen between White Hill and Black Law, and beyond across Connor Hill and Foredibbon Hill at c. 2.0 miles (3.2 km) distance, is within medium signalling range. In 1992, via a prolonged and wide unplanted break extending into the forest from the foot of Stoney Hill, it was possible to reach the Roman road level and confirm that even at ground level the Glengaber site was in plain view.

The potential signal station site we sought was unfortunately buried in forest to the east of the break. This, at NS 72702099, was recorded in 1972 as a turf-walled enclosure some 20 feet (6.0 m) across internally and 48 feet 3 inches (14.7 m) over the wall, with traces of a shallow ditch round the north, east and west sides.

Apparently anomalous was a distinct ledge round the inner side of the wall. However, this feature recalled the palisade channels which followed the edge of the ramparts of the two ring-ditch sites on Connor Hill (Newall and Lonie 1991a: 130), little more than 2.0 miles (c. 3.4 km) W.N.W. of Glenaber Spur. The possibility of these sites being Roman signal stations is now strengthened by their circumstances, and we may find an analagous internal palisade trench at the signal station at Thornhill on the lower Nith (St. Joseph 1953: 59). We have confirmed that, at turret height, the Connor Hill sites would have been intervisible with Glengaber Spur. The Scottish Naturalist

Our problem lies in the means of communication between Glengaber Spur and the Nith Valley. This should necessitate a link near High Knypes, from which a signal might be relayed down the Glenaylmer Valley towards Vennel. It would seem probable that any assistance should come from the Nith, for one would assume that the Glengaber station was manned from a fort on its line of communication, and as the Nith roads must branch somewhere near Vennel we might expect such a fort to lie in the vicinity.

At present no fort has been located on the Upper Nith, but two fortlets, remarkably closely spaced, two marching camps, and a possible ring-ditch site have been considered as possibly Roman.

The first fortlet, at Bankhead Farm, Kirkconnel, was described by Clarke and Wilson (1960: 136-142). On sloping ground E.S.E. of Bankhead Farm, NS 74831185, it was 120 feet (36.58 m) by 66 feet (20.1 m) within a 12 feet (3.66 m) wide rampart. It was surrounded by a ditch, 11-13 feet (3.35 - 3.96 m) wide, which divided along the west side into an inner and outer ditch. Average ditch depth was 4.0 feet 6 inches (1.37 m).

Within this were several flagged patches, one post-hole, and a length of foundation trench for a timber building. The gateway lay off-centre in the narrow south side, and the drains, which edged the 12 feet (3.66 m) road which passed through it, flowed into the fortlet ditches.

There were no finds, nor traces of occupation.

In subsequent excavations by Wilson (1963), while iron slag, glass, and sherds of fifteenth-century A.D. pottery were recovered from a stony platform, built across the inner west ditch which had been filled and levelled, no primary finds were made.

In view of the absence of Roman finds, although in general the fortlet was initially accepted as Roman and mapped by some as an Antonine site (Breeze 1979: 10; Figure 4), since the discovery of the fortlet at Crawick, Sanquhar, the Bankhead Farm fortlet has been removed from the accepted list. Compare Frere (1967: 158-159), where it is listed and mapped, with Frere (1987: 130) where it has been removed from the list and maps and replaced by Crawick, Sanquhar.

The latter fortlet is described by Maxwell and Wilson (1987: 22) as at Sanquhar, NS 77551061, on the edge of the river terrace on the left bank of the

Nith at its confluence with the Crawick Water, and measuring internally 54 m N.W.-S.E. by 40 m within a single ditch. An entrance was presumed in the middle of the north-west side.

In the south-east corner was the corner of a foundation trench for a timber building. No artefacts were found, but the authors suggested that dimensions, plan, and internal structure should assign it to the long-axis Antonine fortlets such as those at Durisdeer, Tassiesholm (i.e. Milton), and Burnswark.

It should be said that many pre-mediaeval homesteads present the subrectangular outline of the Roman fortlet. The earthwork we have mentioned at NS 78120753 on Route E south (above), although small, presents superficially a Roman outline.

At Bankhead, NS 74751221, north-east of the farm, Clarke and Wilson (1960: 176) record a possible marching camp with sides of 700 feet (217.36 m) and 600 feet (182.88 m). A single section across the ditch showed it to be 6.0 feet (1.83 m) wide by 2.0 feet (0.61 m) deep.

This has not found general acceptance, nor has the camp on the farm of Butt Knowe (Clarke 1953: 118-119), NS 72401302. There, a series of trenches traced the east side for some 130 feet (39.63 m), the south-east corner, which was evenly rounded on a 25 feet (7.62) radius, and the south side for c. 70 feet (21.33 m) of its 500 feet (152.4 m) length as seen on an aerial photograph. The ditch, 10 feet (3.05 m) wide by 3.0 feet (0.92 m) deep, descended sharply on the outer side but rose gradually to the inner edge. There were no finds.

The position of this site, relative to the point of separation of the Roman roads, suggests that further search in the vicinity is desirable (Figure 14).

A ring-ditch site is recorded on the opposite side of the Nith near Cadgerhall (Wilson 1989: 15). If it existed, it may have been a station in a Glengaber group, set back to facilitate visibility from the height. Such a situation, however, raises the question as to whether the Roman road continued up the right bank of the Nith, to cross near this spot.

Acknowledgements

We gratefully acknowledge the information received from farmers and shepherds we met on our way. Especially we would thank Mr. James Latta, the hospitable elderly shepherd of Glenmuirshaw, who informed us that his father knew a man who "in the old days" had spent four days droving from Newton Stewart by Carsphairn to Lanark. In his own locality, the droves passed over the tops of Niviston Hill, Lethans Hill, Auchtitench Hill, and then by the road over Penbreck shoulder to fall in with the Roman line at the Laird's Burn. The last stop was at Bodinglee, before Lanark.

John Clarke's copious notes, correspondence, and selected aerial photographs, relative to his research in the Nith valley and furth into Ayrshire towards Cumnock and Mauchline, are retained in the Hunterian Museum. Frank Newall is grateful to Dr. Lawrence Keppie for drawing his attention to this material and for granting access to it.

The grid reference points on Figures 3, 4, 8, 9, 10, 12, 13 and 14 are of the National Grid taken from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office.

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Introduction

The roads described in our earlier reports, Routes A to E, are undoubtedly Roman. In the main they connect with Roman sites, but where for long distances they do not, their very length has allowed a scrutiny of their character over meadowland and peat moorland, and of the methods employed in tackling inclines, water courses, gorges, and peat bogs. In the following reports we deal with shorter lengths of road. While all these roads present characteristics which might be attributed to Roman construction, in most cases there is room for doubt. This applies especially to the first roads ever suggested as Roman in the Nith area.

It may surprise some that we face this problem, particularly those who think of Roman road building as a special case, followed by a gap until Wade and then progress to the motorway.

Normally there is little difficulty in distinguishing an eighteenth-century road from a Roman one, given a reasonable length for study; the problem lies with earlier post-Roman construction. It seems advisable, then, to consider post-Roman road building activity in some detail.

From our reports, it will be seen that all Roman roads were used by later travellers who ground out the hollow ways. Indeed, major hollow ways follow Roman roads with such persistence that we may accept that the Roman system formed the blue-print for the early Mediaeval network. At least one deep hollow way from Dalry via Kilwinning to Portencross was traditionally in use as early as the tenth and eleventh centuries (Newall and Lonie 1990: 48).

The advent of the Feudal System, and the need for communications to assert the authority of the Monarch, may have led to the improvements we find in the hollow ways (see later). Certainly by the time King David the First (1124-1153) extended the authority of his feudalised kingdom by the incorporation of his princedom of Strathclyde, as charters show, an established road system existed. Barrow (1984) demonstrates that not only could the main roads support vehicular traffic, but that, at least by the thirteenth century, repairs were being effected, and even a new road made, that by Edward the First in 1296.

There seems to be little doubt that essential road repairs would attend the transit of major siege engines recorded in the fourteenth century. Barrow (1984: 53) records the haulage of one huge engine on twenty-one carts, and another 'Le Berefry' on thirty carts. It is difficult to imagine such loads proceeding by hollow ways or even by narrow metalled tracks. To allow for steerage by the teams of horses or oxen employed, one would expect a reasonably wide firm or metalled track to have been prepared. Certainly with the introduction of heavy ordnance, such as Mons Meg, there is no doubt that a levelled firm road would be required. Mons Meg weighed eight and a half tons. When she left Edinburgh in July 1497, for the siege of Norham, she was hauled on a new cradle by four massive specially made cables, and was preceded by one hundred men armed with spades and picks to prepare her way (Paul 1916: 200). That this was accepted practice may be seen in a perusal of the Treasurer's Accounts for July 1489 relevant to the siege of Lyle, in Duchal Castle by Kilmacolm, where Mons Meg was fired in earnest. James IV borrowed schules (shovels) from Abbot Shaw of Paisley Abbey and made payments to the men "wha kist the gait" (made the road) and to those "wha cartit Mons".

Near Kilmacolm, south of the B788, the earliest of three roads is now a 24 feet (7.3 m) wide mound which overlies, under some 8-10 inches (20.2-25.3 cm) of earth, a road of small metal aligned to avoid the twelfth century motte at Denniestoun, and headed towards Duchal Castle. This may be the road of which the surface was prepared or repaired for James IV. We have suggested that it may have been a continuation of the thirteenth-century road which ran west from Paisley via the Pontem de Kert at Johnstone (Newall 1965: 10). No other early road has been found heading for Duchal, and there is no trace of hollow way.

There are numerous references in charters to Royal Roads, perhaps to roads which, like the above, had been made or repaired for the King. Literally a Royal Road (*Via Regia*) was that ordered in 1325 by Bruce, to be built from his castle at Tarbert to Tarbert West Loch, possible to his new peel tower there (Campbell 1987: 3).

The necessary manpower for such work could be raised not only by the Monarch, but also by the greater barons and monastic leaders. That such road maintenance was no rare occurrence, is implied by the wording of Sir John Comyn's charter of 1250, whereby the monks of Melrose were authorised to renew

a road "by ditches and causeways or in any other way they please" (Macdonald 1894a: 43). Another charter by Comyn, granting passage to the Augustinian canons of Inchaffray, provided that they built and maintained a bridge, is cited by Barrow (1984: 56). In the first-mentioned charter, a wagon road was being considered, hence the reference to "causeways", i.e. metalled roads.

The monks of Kelso were also interested in wagons. Granted the "villa de Lesmahagu" with houses at Innerleithan, Peebles and Lanark *en route*, by Malcolm IV in 1159, we find that by the thirteenth century they had erected a bridge at Ettrick, capable of supporting wheeled vehicles, and that each husbandland on either side of the bridge was required to provide service to maintain cartage on the road to Lesmahagow. Hardie suggests that the bridge at Ettrick was intended to improve communications via the Minchmoor road, which was certainly no hollow way (Hardie 1942: 10, 16-17).

Dr. Lonie has independently pursued the possible development of Abbey roads. Of the above, he points out that the site of the Ettrick Water bridge is said to lie between the farms of Bridgelands, suggestive of the above-mentioned husbandlands, and Ovenscloss (= Owen's Cloister), and that the site of the first abbey before transfer to Kelso was c. NT 48403080, just north of the Battie Burn (from *abattis* = abbot's).

In a separate paper, pending publication, on 'A possible early Abbey road from Teviotdale to Eskdale', Dr. Lonie points out that Holyrood could reach its appropriated churches in Galloway via the Carlops-Clyde-Crawford route, following some fifty miles of Roman road out of a total of eighty miles. Likewise, to reach its vicarage on the Upper Nith at Old Kirkconnel, Holyrood could follow the same Carlops-Clyde road extended via Pepper Hill (Route C east) and Fingland-Vennel (Route E north B), - a Roman route in its entirety.

Dr. Lonie adds, "One must wonder to what extent use and maintenance by Abbey agents may have been responsible for the present good state of preservation of long lengths of the Roman roads, and just how much of the Roman road structure along these lengths was the work of Abbey servants".

Certainly an impetus to trade, and hence to improved communications, was provided by the erection of the burghs, royal, baronial and monastic. Jealous of their spheres of influence and trading rights, they are not infrequently found in litigation. Throughout the fourteenth century they were receiving financial autonomy in return for a fixed annual "reddendo". These free burghs with their own councils could be summoned to send representatives to parliament. Their burgages helped to shape the policy of the state, and in times of national emergency they assisted the King financially. That they prospered is inevitable, and it is scarcely fortuitous that, into the sixteenth century, towns were improving their approaches and enhancing their entrances. In 1577 the Glasgow magistrates appointed a "calsaye maker" for two years. In 1578 he was to be brought from Dundee (McGeorge 1888: 269). In 1545 the monks of Paisley were drawing rents from the Cowsasyde, and Causa ende is mentioned (Metcalfe 1905: 406). We need not labour the point.

Throughout the sixteenth century there may have been such an increase in traffic that the attrition of the roads was accelerated. With the Union of the Crowns, in 1603, came equal trading rights with England, possibly leading to greater demands upon transport. Consequently, Acts were passed to provide up to six days compulsory labour in repairing the highways. These statute labour acts continue throughout the century. Strawhorn and Andrew (1988: 44) list acts of 1617, 1661, 1669, 1686, 1696, and 1698. The fact, which they also record for 1619, that the Earl of Eglinton required six of his ablest tenants to assist with his new coach to Glasgow, indicates that a road existed, that coaches were in fashion, that the road was not impossible if at times difficult, and that for such traffic it might require resurfacing.

Much is made of the frequent complaints, voiced during this and the following century, about the abominable state of the roads. However, as Ruddock puts it (1984: 67), "It is not clear that the vehicle roads deteriorated after 1400. Dissatisfaction with individual roads was recorded at various times between then and 1750, but it may have been purely local and temporary; or it may have been prompted by expectations of improving standards rather than the actual deterioration of the roads". During the past decade and longer, the local and national presses have printed articles and readers' letters, couched in terms ranging to the superlative and the hyperbole, about the condition of the roads in Strathclyde. How might this material rate as evidence at some future date?

Apart from causeways, we have recorded hollow ways levelled off at bottom with cobbled bases, e.g. the Black Burn crossing (Route C west), the length beneath the Watsonburn - Corsencon coal road centred on NS 65501655, and the narrow way at Offerance (Route D). Beneath the Old Sanquhar Road south of Muirkirk, we have a hollow way not only filled with cobbles but levelled off with metal oversailing the sides.

We have also recorded above Auchincloigh (Route C west), a 15 feet (4.6 m) wide trench-set road where the cobbles rose to a level with the ground surface.

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This appeared to post-date the cobble-bottomed hollow way in the vicinity. Macdonald (1893: 423) describes a similar road excavated at Smithston on the line of the Ayr-Dalmellington road, then considered to be Roman. There a shallow trench, c.10 feet 7 inches (3.23 m) wide, contained a "bottoming" of large stones kerbed and overlaid with smaller stones, then gravel. Such construction Macdonald argued would be the practice "for a century or two before the dates of Macadam and Telford", and appeals to Macadam (1893: 428) for a statement that the method "was common in England and universal in Scotland". Nevertheless, of his own method of construction, Macadam said that he had encountered examples in several parts of Ayrshire.

Accepting the above dating, we may suggest tentatively that the hollow ways worn down by travellers and pony-trains were being cobble-bottomed or cleaned out to reach a hard surface by the thirteenth century, and by the sixteenth century were being replaced by the trench-founded roads, i.e. the old pony tracks were being adapted for heavier vehicular traffic. Where such a road was re-surfaced, the top dressing might well oversail the sides to present a low camber. Such was noted by us on the line of the old Ayr-Dalmellington road (north of Route C west) near Holehouse, where a low 18 feet (5.5 m) wide camber merged with the field.

Thus the 'Roman' profile might arise at any time, from the causeways for wagons referred to in Comyn's 1250 charter and the roads for the conveyance of siege engines and artillery, especially where such roads were maintained and repaired with added road-metal.

Elsewhere, such as in Glen Artney (Route D), preceding the Old Sanquhar Road (Route B south), and following the Roman road east of Gatehouse of Fleet on an entirely different line from that of the eighteenth-century Old Military Road, we have recorded metalled roads in situations where a seventeenth-century or even earlier foundation date seemed probable. These roads tend to be of small to medium cobbles, occasionally roughly kerbed and with a flattish camber.

It can be seen that an agger over open ground cannot be unhesitatingly classed as Roman, unless over at least several miles it has exhibited solely features of accepted Roman character. With this caveat, we may now complete our survey of the Nith roads.

The Nith Valley: Early Roads in the West Catchment Area

A reference to 'Roman' roads relative to the Nith, as passed to George Chalmers by Joseph Train for insertion in the third volume of *Caledonia Romana*

The Scottish Naturalist

(Chalmers 1824), is covered by Macdonald (1893: 417). By the mid-19th century Chalmers had aroused sufficient interest to allow of several old roads being considered 'Roman'. These are included by Fullarton (1853) in a two volume alphabetically arranged gazetteer with a section on 'Roman Roads'. Only two roads require our attention: (a) The 'Cairn Valley' road, and (b) The 'Scar (Scaur, Scarr, Skarr) Water' road. A third road leading north from Tynron Doon "in many places quite uncovered with grass" (Fullarton 1853) is not convincingly Roman.

(a) The 'Cairn Valley' road

The earliest reference to the above (Chalmers 1824: 448) is considered by Macdonald (1893: 428-429), "after traversing Dumfriesshire throughout the vale of the Cairn Water by Conrig to the top of Glencairn it passed into the Stewartry of Kirkcudbright. It now coursed through Dalry parish to the farm of Holm in Carsphairn parish, whence it proceeded across the ridge of Polwhat to the northwest extremity of the parish, where it left the Stewartry and entered Ayrshire, going forward to Dalmellington". Macdonald infers that the road entered Ayrshire to the north of Todden Hill, stating that the direction after leaving Dalmellington must have been E.S.E., not south-east as mapped. He returns to the Ayrshire-Dumfriesshire divide to mention an "isolated piece of 'Roman Road' about a mile in length and rather more than that distance west of Holm of Dalquhairn" (1893: 429). This he does not map (1894a, map 2), but inserts, apparently, a further isolated stretch which "passed eastward into Dumfriesshire from Altry Hill in Kirkcudbright" (1894b: 299).

On his map, this length between the head streams of the Ken and Shinnel appears to lie south of Altry Hill, and despite its E.S.E. alignment may be the Cairn Hill - Trostran Hill length (see later).

Fullarton (1853) records (Kirkcudbright) that the Glencairn road "passed through the lands of Altry in Dalry". It is not without interest that Allan's Cairn, NS 69800085, erected in 1786, records the execution of Allan and his covenanting companion by Lagg's men "on the lawns of Altry".

(b) The 'Scar Water' road

In his treatment of the Cairn Water road, Macdonald refers to another road that "turned off to the west from the Nithsdale road, crossing the Nith and passing through Tynron by Scarwater" (1894b: 317). Fullarton (1853) records (Penpont) "A Roman causeway is traceable up the Scar and into Tynron and there are vestiges of a Roman camp".

It seemed possible, then, that a road had crossed the Nith near Carronbridge or Thornhill, following the habitual north-east to south-west alignment, and that from it a road had run N.N.W. In an initial attempt to trace this (1975) we followed the Water of Ken, examined a length of ancient road between Lorg and Polskeoch, and traced a road up the south-west flank of Altry Hill. In subsequent surveys, made to intercept any road travelling north via the Cairn-Scar headstreams, we examined three roads which presented Roman characteristics:

- a. The Lorg Polskeoch road.
- b. The Greenlorg Blacklorg Lorg Valley road.
- c. The Coranbae (Cairn Hill) Trostran Hill road.

The Lorg-Polskeoch Road: Route E West A (see Moir 1975: 53. Route 86)

Formerly, a road followed the Scar Water to Polskeoch to continue via Lorg down the Ken valley. By the time of the first Ordnance Survey the stretch between the above farms had been abandoned for wheeled traffic, although it was still mapped as a path. Degeneration was probably due to the fall, perhaps early in the nineteenth century, of a bridge over a minor but steeply-banked stream, NS 67720138. Before afforestation (1975) this length was traced from Lorg to Polskeoch footbridge, and was recorded as a level 12 feet (3.33 m) track with a sharply scarped, in places built, edge. For some distance this ran between low banks some 50 feet (15.24 m) apart, but we did not trace these continuously.

Uphill lies an earlier road, terracing the south foot of Lorg Hill for c. 200 yards (182 m), with faded upper scarp and rounded lower shoulder. Occasionally displaying a low camber, this measured at surface 21 feet (6.4 m) across. In country then combed with forestry drains, it was difficult to trace, nor could a made road be distinguished in the cuttings. At least once, the upper turf mound containing the lower road crosses the terrace. In this short length, despite its obvious appearance of antiquity, we could not classify this road.

A revisit concentrated attention on the ruined bridge. About 100 feet (30 m) west of the bridge, the early road terrace measured 37 feet (11.3 m). Overhanging the burn, the road section was of smallish cobbles between larger stones, 18 feet 6 inches (5.6 m) wide and covered by at least 6.0 inches (15 cm) of earth. This section was cut when the later road was diverted to pass over the levelled-off debris of the ruined bridge, the nature of which could not be determined. The new passage had involved recutting and embanking, and probably resurfacing, of the

1995

later road for some distance on each side of the crossing to re-establish a vehicular road. This second road, of the narrower width, had degenerated to a path by the time of the first Ordnance Survey, and, to judge from the enclosing banks, was by then used for droving.

There was no indication that the earliest, terraced road had ever continued down the Ken beyond Lorg. To check this, we attempted to survey the course at the west end of the route as indicated by Moir (1975: 53. Route 86). Starting at Knockgray, although a part-metalled track could be detected in places, some 10 feet (3.0 m) across at widest, it was almost impossible to trace through tussocky grass moorland, and it was obvious that there had never been a major through road. The metalled track essentially rises on either side of bridge piers at the Polhoy Burn, NX 59309450, and then runs to a small settlement at NX 59359450.

This comprises a round-ended turf-walled long house with a small separate chamber at the south end, measuring 49 feet 3 inches (15 m) by 21 feet 6 inches (6.5 m) over the 5.0 feet (1.5 m) wide turf walls; a small oval turf foundation, 19 feet 9 inches (6.0 m) by 13 feet 3 inches (4.0 m); and a circular mound hollowed at centre (a kiln?) 13 feet 3 inches (4.0 m) across. A triskele sheep shelter overlies the oval structure and the road, which can be traced towards the south-east spur of Knockwhirn, where there are other traces of settlement near a large circular enclosure and clearance cairns. There, NX 60409510, a second round-ended long house is of stone with a turf-walled chamber attached at one end, and 34 feet 6 inches (10.5 m) by 16 feet 6 inches (5.0 m).

We conclude that the later narrower road is of seventeenth to eighteenth century construction, which, in view of the bridge and repairs, may have been improved east of Lorg.

The Greenlorg-Blacklorg-Lorg Valley Road: Route E West B

An ancient road has been traced from the west flank of Blacklorg Hill to Lorg farm. It is crossed, NS 65080412, by the stone dyke from Cannock Hill to Blacklorg Hill, which has a narrow gap for more recent traffic. Northwards the road turns the shoulder of Blacklorg Hill towards the west flank of Greenlorg Hill. To the south it contours the slope of Blacklorg Hill, NS 65150400 - NS 65500375, swinging S.S.E. - E.S.E. - S.E. round a gully head, to aim for a mapped cairn on Littledod Hill, NS 65700350.

Along this length there is every indication of an ancient road, overall up to 29 feet 6 inches (9.0 m) wide, but on the slope reducing to 22 feet 6 inches (6.8 m). It

is worn by secondary use, dissected by streams, slipped, hollowed along the rear edge of the terrace by traffic following a turf-covered hardway, and at the head of a lesser tributary to the Montraw Burn, which may have issued from a culvert, is reduced by stream erosion to 11 feet 6 inches (3.5 m) in width.

It is interesting to find this incorporated in "A good ridge walk over Windy Standard, Alhang, Alwhat, Meikledodd, Blacklorg and Blackcraig" without any reference to a road (Strawhorn and Andrew, 1988: 181).

South-east of Littledodd Cairn the road contours the head of the gully above the main Montraw Burn to NS 65850323, where it curves markedly S.S.W. projecting a road-like cambered length forward over the shoulder of Meikledodd Hill, to pass beneath the triple fence junction near the summit, NS 65950286, beyond which, initially 26 feet 3 inches (8.0 m) wide, it fades to a mere track along the fence towards Lorg Hill.

The main terrace, now 19 feet 9 inches (6.0 m) wide on a steep slope, rounds the west shoulder of Meikledodd Hill, increasing to 29 feet 6 inches (9.0 m), but along the gully head between Littledodd Hill and the north-west spur of Meikledodd is a skein of tracks.

The main terrace runs high, with a faint hollowed track above it. Below, up to four narrower tracks, some hollowed, have diverged from the primary and, in time, from one another.

Beyond these diversions the main terrace, ranging from 28 feet 3 inches (8.6 m) to 33 feet (10 m) across, with the road shoulder some 21 feet 9 inches (6.6 m) from the uper edge, runs S.S.E., NS 65900245 - NS 65950226, to pass down the east flank of the Lorg Valley.

At this point, sections were provided by erosion and sheep scrapes. In one, the surface of the prepared peat terrace was overspread by a 1.0 inch (2.0 cm) thick layer of yellow clay, surfaced with a 0.5 inch (1.0 cm) thick band of black vegetation. On this bedding - presumably of laid peaty turf - was a road of hard compacted gravel 6.0 inches (15 cm) thick, but with only 4.0 inches (10 cm) of peat over it. In a second scrape, similar dimensions obtained, but no yellow clay was present, although the dense black vegetation band surfaced the peat terrace.

Down the Lorg valley the antiquity of the road is further shown by slip, local realignment, hollow-tracking along the terrace, and by near surface stretches of obviously secondary cobbling. North of the upper of two sheep fanks west of

1995

Green Cleugh, the road changes direction to south-east, NS 66180183, to run as far as the Green Cleugh, where it realigns S.S.E., NS 66350167, reverting to south-east before fording a small stream, NS 66430252. At the crossing, secondary metalling has separated from the main terrace to cross downstream of the primary, which is betrayed, NS 66620128 - NS 66640119, by a straight length of stream diverted to run alongside.

From Green Cleugh the terrace degenerates, and although in general an overall width of at least 26 feet 3 inches (8.0 m) of altered ground persists, the road is not obvious. A trace passes centrally under the most northerly stone wall from Lorg farmhouse, NS 66740112, and a mound passes through rushes, and apparently by a cutting through a ridge beyond, to clear the east wall of Lorg field at NS 66850100. From there, a faint terrace may be traced to link with the earliest Lorg-Polskeoch road, passing a round-ended longhouse foundation east of Lorg farmhouse.

However, all is confused by Lorg farmhouse and its surroundings, including earlier farm foundations, and it is possible that the faint terrace, above, is not original. In much cultivated infields, the main road may have formerly continued to a heavily metalled stretch, which passes beneath the present road to Lorg farm to reach a built ford across the Ken, NS 66800054. This road, 21 feet (6.4 m) wide under c. 10 cm of soil, cannot be traced on the south bank of the Ken, where erosion has left the approach ramp to the ford suspended above the stream.

It may have continued, perhaps at a later phase, by the narrower terraced track which mounts the west face of Altry Hill. No connection could be made between this and a length of zig-zig track, traced for some distance between turf banks up the south-west shoulder of the hill, nor between the latter and the Cairn Hill - Trostran Hill road.

The Cairn Hill - Trostran Hill Road: Route E West C

Traced on the R.A.F. Air Cover by W. Lonie, this road was followed on the ground from c. 150 m north of the woodland break at the head of the Shiel Burn, NX 67509870, to pass c. 100 m north of the cairn on Cairn Hill, NX 67979890.

Clearly mounded on the lower slopes, it becomes less distinct on the rise to Cairn Hill, but from there, along the downhill north flank of the watershed to E.N.E., it is an obvious major terraced road. Three overall measurements, from upper scarp foot to the bottom of the lower scarp, were taken at NX 68329906, NX 68409910, and NX 68739920 as, respectively, 22 feet 6 inches (6.85 m), 23

feet 8 inches (7.2 m) and 27 feet 4 inches (8.3 m). Beside the first, one of many cuts into the lower edge bares compacted small stones in yellow clay below several inches (c. 16 cm) of peat. Close to the second, the foundations of a turf hut lie partly across the road.

Along the entire length from Cairn Hill eastwards, the uphill side is scarred by a series of cuts which run back for a short distance into the peat moorland, but do not continue as drains. Less evenly spaced, more sinuous runnels issue from the downhill side of the road; culverts may exist.

Following the uphill side of the terrace, there travels a hollow way up to 12 feet (3.7 m) wide, while the parish boundary, although farther south, is parallel with the road.

From the north face of Cairn Hill the road edges more east, then contours E.N.E. round Black Hill, with a further straight E.N.E. length to NX 68759918, and a more easterly length to the west limit of plantation, NX 68929919.

On the Air Cover, the pre-afforestation line runs to NX 69359922, switching E.N.E. to NX 70009951, and again easterly to the south flank of Trostran Hill, NX 70509967, and beyond, less certainly, to NX 71059985. To the west, from NX 67509870 the pre-forest course ran to NX 67259838, W.S.W. then due south-west towards the end of the straight road from Corlae.

Less distinct on the Air Cover, a road appears to run from Conrick, at the head of the Dalwhat Glen, to curve up the spur of the Snab to Colt Hill and down its N.N.E. spur to join the above road, NX 70189954 (see Clarke, later).

Macdonald's small stretch of 'Roman Road' (1894b: map 2) should lie close to this road, but is inclined N.N.W.- S.S.E. We have failed to locate such a road, either on the ground or on the aerial photographs. We conclude that it is our road, falsely mapped.

Clarke clearly stood on this road in 1951 (1953: 116-117). His report is worth quoting: "Tradition speaks of a road by Stenhouse on the Shinnel Water, Tererran, Drumloff, and thence via Conrick over desolate moors to the Upper Ken at Holm of Dalquhairn. It can be said at once that a road exists, clearly traceable over the north shoulder of Colt Hill, NS 698992 and on westward to Black Hill and Coranbae Hill. The descent to the Ken is not plain, but the road can be picked up again climbing the north shoulder of Mid Hill of Greenhead [*sic* - clearly a mistake for Glenhead] and on over the south shoulder of Windy Standard. It does not

conform to our ideas of a Roman road. It is but ten feet wide with a light metalled surface under peat which, on the average is rather more than a foot thick over it. Yet it has a character different from the tracks which, even in remote places, are commonly found wandering over the moor. In distinction from them it drives a purposeful course, sometimes standing out as a gently hummocked causeway, sometimes cut through an intervening rise of ground. In the ascent of Mid Hill of Greenhead [Glenhead] there is one quite considerable cutting, in no way resembling the hollow way of a long used cattle road". Clarke now suggests that this may have been a patrol road for Roman cavalry, "keeping a routine eye on the moorland expanses".

It can be seen from our description of the road between Cairn Hill and Trostran Hill, and Clarke's description of the section over Mid Hill of Glenhead, that these do not appear to be lengths of the same road. Indeed the Mid Hill of Glenhead road, whatever its origins, was an accepted eighteenth-century road mapped by Armstrong in 1733 (Moir 1975: 53-59, Route 82).

The south end of this same road, as indicated and delineated by Moir, we have surveyed from Stroanpatrick to the Auchrae Burn, for it was always possible that this lower length had connected directly with the Cairn-Trostran Hills road. Such was clearly not the case.

The Stroanpatrick road is of the narrow gauge described by Clarke farther north, and in tracing it between the fords on the Kiln Knowe, NS 64959270, and the Auchrae Burn, NS 64759410, we can see how such a road developed in use.

At the Kiln Knowe the road is of compacted gravel beneath c. 12 cm of earth. Uphill, as it flanks a circular enclosure adjacent to plantation, NS 64859305, it is a terraced road widened by use to 16 feet (4.9 m), but soon, as it travels uphill into moorland, it contracts to little more than 12 feet (3.66 m). In the descent to the Little Auchrae Burn it had become hollowed in wet peat, despite being metalled, and an alternative course, now also hollowed, was adopted. This required the construction of a second ford farther along the stream.

These fords, like the one over the main Auchrae Burn, are of a type. Built across shallow but abruptly banked streams, they comprise a built face, several courses high, keyed into the banks. Behind this barrier, the stream bed is filled to bank level with cobbles and small stones for a distance of 12 feet (3.66 m), leaving the water to flow over and percolate as in a rumbling drain.

1995

Passing closely a burnt mound, NS 64749347, and associated cairns, the road clears the west shoulder of the most westerly Round Craig as a slight terrace never wider than 18 feet (5.5 m), accompanied by several slighter alternative tracks.

On the descent to the Auchrae Burn a deep hollow way has been gouged out, c. 15 feet (4.58 m) across. Beyond, the road proceeded to Strahanna, then north-east up the Ken to cross to Holm of Dalquhairn and pass up the glen to Mid Hill of Glenhead. There is no record in the eighteenth century of any road down the neighbouring Lorg Valley being in use. May we infer that it had long ceased to be a through road, its lower end having already been overlaid by Lorg farmhouse and enclosures?

With the Stroanpatrick road we may compare another mapped road of the eighteenth century. Moir (1975: 48, Route 70) describes this route from Barr to Kirriereoch, and quotes from Armstrong's map of 1733, where it is noted that "At the Nick of Darlae and half a mile to the west the road leads to the side of a very steep hill, it's not above two feet broad and if you stumble you must fall almost perpendicular six or seven hundred feet". The fall is not quite as severe, although steep, and is nearer to two hundred than to six hundred feet. What is of interest is the stated width of the road in 1733, "not above two feet". Since then, due to gradual soil movement on the steep slope, the road at this point is indeed a mere ledge, and alternative paths lead above it. But the road was a well-engineered and well-metalled vehicular way, persistently some 7.0 - 8.0 feet (2.1 - 2.5 m) wide on a prepared terrace 12 feet 6 inches to 12 feet 9 inches (3.8 - 3.9 m) wide. At the Changue Burn, NS 31509030, the crossing, due to the depth of the burn, was by culvert. Edge-set slabs along the sides supported horizontal slabs, over which the road, of small cobbles several layers thick, passed. Following the wash out of one side of the culvert, the road was redirected to a ford upstream.

From the condition of this road as described in 1733, we must conclude that by then it had been in use for a considerable time, and that, in fact, it probably became a metalled track in the seventeenth century. With this we may date the not dissimilar roads between the Ken Valley headstreams and those of the Nith's western tributaries, including the one from Lorg to Polskeoch. Farther east this last continued to Sanquhar over Cloud Hill, but not as a well-engineered vehicular road. Tradition at Sanquhar would have Mary Queen of Scots traverse this route.

Whatever the origin of these roads, they are clearly of a different build; indeed a different system from the older wider roads we have traced down the Lorg Valley and, high above the later narrower roads, between Cairn Hill and Trostran Hill.

That the larger heavier builds are earlier, is obvious. Despite their relatively shallow overburden, which can be explained by secondary traffic wear, and the somewhat sinuous character of the Lorg Valley road at its northern end, which tends to cast a shadow of doubt, the possibility of a Roman origin should be considered.

In view of the opportunities for covert infiltration offered by the long penetrative corridors of the Ken and the Cairn tributaries, Clarke's concept of an upland Roman patrol is valid. Whether the road pattern in the area arose from Roman strategy or in response to a later agricultural economy, the outlet from the area northwards would appear to have led towards New Cumnock rather than to Dalmellington.

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STRANGE BEASTS ON THE BONNY BANKS: AN UPDATE

By JOHN MITCHELL Drymen, Stirlingshire

In view of the degree of interest still being shown in the above article, on seventeen non-indigenous mammals which have put in an appearance on Loch Lomondside from time to time (Mitchell, 1983), an update may not be out of place.

THOROLD'S DEER Cervus albirostris

First a probable correction to the original article. A single deer on the hills above Balmaha in 1952/53, possibly the last survivor from a group which had made their escape from the short-lived Craigend Zoo near Milngavie, was identified by a Forestry Commission stalker as a Thorold's Deer, a native only of the east Tibetan plateau north of Lhasa. Thirty years later, however, the successors to the former zoo owners suggested that the animal was more likely to have been a Père David's Deer Elaphurus davidianus, a species originating from China, and now extinct in the wild. With lack of documentation either way, there the matter had to rest. Fortunately, a newspaper cutting, recently unearthed in the local collection of Bearsden public library, would seem to have finally established the deer's identity in favour of Thorold's Deer. According to this report (Milngavie and Bearsden Herald, 24th September 1949), five Himalayan deer escaped from the collection by jumping over the perimeter netting just prior to Craigend Zoo being opened to the public in April 1949. Evading re-capture, the deer took refuge on the high ground of the Stockiemuir.

SIKA DEER Cervus nippon

Scarcely had the ink dried on the original article when along came the first of two confirmed sightings of Sika Deer on Loch Lomondside, a single stag keeping company with Red Deer *Cervus elaphus* on the hills just north of Tarbet in October 1983 and May 1984 (Mitchell, 1985). Four years later, in October 1987, a Sika stag turned up at Inversnaid estate on the opposite (east) side of the loch (Trubridge, 1990). Introduced into Kintyre at the end of the last century, this oriental species has been steadily spreading through the west of Scotland ever since, with recent records from the hills to the north and west of the Loch Lomond area.

RED-NECKED WALLABY *Macropus rufogriseus*

An established antipodean mammal which has continued to attract both scientific and media attention is the small population of Red-necked Wallabies, descended from two Whipsnade-bred pairs released on Inchconnachan about 1975. A census of this Loch Lomond island colony, organised by the University Field Station in January 1992, showed a minimum of twenty-six animals present (Weir, McLeod and Adams, 1995). Swimming appears to present no difficulties to wallabies, with the result that the occasional animal moves off the island onto the mainland. Amongst a number of mainland sightings reported was a particularly adventurous individual which, in December 1990, had travelled as far as the Endrick marshes in the south-east corner of the loch.

WILD BOAR Sus scrofa

After the Cameron House Wildlife Park finally closed its gates and sold-up in 1987, the number of exotic mammals wandering loose about the bonny banks declined accordingly. Elsewhere on Loch Lomondside, however, a breeding group of Wild Boars was established in October 1991. These animals, which are of Danish origin and nearly all pure-bred, are destined for hotels offering specialty haute cuisine. As far as is known, none of the Wild Boars has escaped......yet.

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CONTENTS

1995 - Part 2

The Romans and Strathclyde: The Road System				
6. The Nith Valley Roads				
Part 1: The Roman System				
By Mr. Frank Newall and Dr. William Lonie	85-115			
The Romans and Strathclyde: The Road System				
7. The Nith Valley Roads				
Part 2: Possible Roman Roads of the Carsphairn Massif				
By Mr. Frank Newall and Dr. William Lonie	117-131			
Strange Beasts on the Bonny Banks: An Update				
By Mr. John Mitchell	133-134			

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